

4—Inspection and Control Procedures

By carefully selecting a representative sample of persons, the safety professional can judge the level of safety performance of the entire system at that particular time. The object is to discover factors which have contributed to an actual or potential loss-producing accident.

What the technique can do

A two-year study evaluating the usefulness of the critical incident technique was recently conducted at a large manufacturing plant in New Jersey. The 187 different unsafe acts and conditions that were identified revealed that the causes of no-injury accidents were the same as the causes of injury type accidents and that future injury type accidents can be predicted from an analysis of "near-misses." It was also found that 52 percent more unsafe acts and conditions were revealed by the critical incident technique than were identified by the accident records compiled during the two-year period studied.

The results of this study show that

- 1 The critical incident technique dependably reveals causal factors in terms of errors and/or unsafe conditions that lead to industrial accidents
- 2 The technique is able to identify factors

associated with both injury and no-injury accidents

- 3 The technique reveals a greater amount of information about accident causes than do presently available methods of accident study. The technique provides a more sensitive measure of total accident performance
- 4 The causes of no-injury accidents as identified by the critical incident technique can be used to identify sources of potentially injurious accidents
- 5 Use of the critical incident technique to identify accident causes is feasible

That the critical incident technique is sensitive to accident problems which have a potential for accident loss, but have not yet produced a loss, is an important advancement in our ability to measure industrial safety performance. The existence of an injury or property damage loss is no longer a necessary condition for appraising safety performance. Accident situations can now be identified and examined "before-the-fact" instead of "after-the-fact," in terms of their injury-producing or property-damaging consequences.

"Behavior sampling," similar to the critical incident technique, is described in Chapter 11, "Human Behavior and Safety."

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